Prevention Marketing Initiative
Issues Management Resource Binder

Introduction

This resource binder is designed specifically for Prevention Marketing Initiative (PMI) site staff and other site representatives. It is a review of recent, peer-reviewed literature about HIV/AIDS education for young people that will serve as the scientific support for program positions.

Programmatic topics and specific messages related to the PMI are not included because these are addressed in other issues management documents.

A. Purpose

The purpose of this resource binder is to provide PMI site representatives with documentation of scientific research about HIV/AIDS education for teens to assist you when responding to inquiries from the media and the community.

B. How to Use this Binder

This resource binder is formatted so PMI representatives can quickly and efficiently access scientific information to support specific programs, interventions and messages. The report is organized by issue and each section includes three types of information: a summary of the scientific literature, full text articles, and additional references. Site staff and representatives determined the following sections based on the most frequently asked questions from the media and community.

I. Are young people sexually active?

II. Are young people at risk for HIV infection?

III. Are specific racial/ethnic populations at risk for HIV infection?

IV. Do educational programs about sexuality and condom use encourage young people to be (more) sexually active?

V. Since abstinence is the only 100% sure way to avoid transmission of HIV, why isn't the project focusing solely on abstinence messages?

VI. Are condoms an effective method of preventing HIV infection?

VII. Is there any proof that educational programs such as this are effective in reducing the sexual transmission of HIV?

VIII. Site-Specific Issues

Sites can share the section summaries in this binder with the community and media representatives and, if more information is requested, the supporting articles and studies can be distributed as well.

C. How to Keep the Information Current

PMI site staff and representatives should regularly review new literature and CDC statements and add documents to this binder. If new information seems appropriate as background or support for all of the PMI sites, please send a copy to Cristina Biro at Porter Novelli and she will distribute the material to all the sites. Also, Porter Novelli will continuously supply updates to this binder. For Section VIII, Site-Specific Issues, site representatives should identify appropriate materials and include them in their own binders.

Section I
Are young people sexually active?

Yes, young people report that they are sexually active.

- The Centers for Disease Control and Prevention (CDC) gathered U.S. data in 1995 through the Youth Risk Behavior Surveillance System (YRBSS). This data revealed that more than half (53%) of all high school students reported having had sexual intercourse during their lifetime. The percentage of students nationwide who reported having had sexual intercourse with four or more sex partners during their lifetime was 18%. More than one-third (38%) of students nationwide reported they were currently sexually active (defined as having had sexual intercourse during the three months preceding the survey). [I-1]

Adolescents are becoming sexually active at early ages.

- The CDC's 1995 YRBSS survey indicated that the percentage of students nationwide who reported initiating sexual intercourse before 13 years of age was 9%. [I-1]

- The Alan Guttmacher Institute reports that "... a greater proportion of teenagers have sex today than did so in recent decades. More than half of women and almost three-quarters of men have had intercourse before their 18th birthday; ... At each age between 15 and 20, higher proportions of teenage men and women are sexually experienced today than were in the early 1970s." [I-2]

- An article that reviewed U.S. data indicated that, since 1960, there has been a consistent trend toward a lowering of the age of first sexual intercourse among young women. For example, "In 1960, slightly more than 300/1000 17 year olds had had intercourse; by the mid-1980s the figure had nearly doubled to 550 per thousand." Social and psychological factors influence young people's behavior. Early sexual initiation among adolescents can be influenced by the media, socioeconomic status and family structure. [I-3]

- A report in the *Journal of School Health* indicated that the percentage of 15 to 19 year old women reporting having had intercourse increased during the

1970s and 1980s. "The median age for first intercourse for women declined from age 19 in 1971 to approximately age 16.5 in 1988. A similar decline probably occurred for young men though this was not well documented. The median age for initiating sexual intercourse among adolescent men averages about one year earlier than that of women." [I-4]

The following documents are included in section I:

I-1 Centers for Disease Control and Prevention. *CDC Surveillance Summaries,* September 27, 1996. MMWR 1996;45 (No. SS-4).

I-2 The Alan Guttmacher Institute. "Sex and America's Teenagers." 1994; New York.

I-3 Moss N. "Behavioral risks for HIV in adolescents." *Acta Paediatr* 1994; (suppl 400):81-7.

I-4 Santelli John S., Beilenson Peter. "Risk Factors for Adolescent Sexual Behavior, Fertility, and Sexually Transmitted Diseases." *Journal of School Health* September 1992; Vol. 62 No. 7:271-279.

Section II
Are young people at risk for HIV infection?

Yes, young people are becoming infected with HIV.

- According to a CDC Surveillance Report describing HIV infections and AIDS cases through June 1996, 3,041 cases of HIV infection have been reported among adolescents 13 to 19 years old. Also, 100,602 AIDS cases have been reported among young people 13 to 29 years old. (Data describing exposure categories are included in this binder as well.) [II-1]

- At a conference hosted by the National Institutes of Health (NIH), two prominent behavioral scientists noted that, "Although adolescents represent less than 1 percent of the cumulative total reported AIDS cases in the United States, adolescents are at risk of sexually transmitted HIV infection. About 18 percent of reported AIDS cases involve young adults 20-29 years of age. Many of them were infected during adolescence, because about 10 years typically elapse between infection with HIV and an AIDS diagnosis." [II-2]

Adolescents are becoming pregnant and acquiring STDs.

- CDC data from the 1995 Youth Risk Behavior Surveillance System (YRBSS) indicated that, nationwide, 7% of high school students reported that they had been pregnant or gotten someone pregnant. [II-3]

- According to the Public Health Service, in 1995 in the U.S., 6,967 cases of gonorrhea were reported among 10 to 14 year olds, and 104,758 cases of gonorrhea were reported among 15 to 19 year olds. Also during 1995, 106 cases of primary and secondary syphilis were reported among 10 to 14 year olds, and 1,795 cases of primary and secondary syphilis were reported among 15 to 19 year olds. The surveillance reported indicated that, "In 1995, the highest age-specific gonorrhea rates among women and the second highest rates among men were in the 15 to 19 year old group." [II-4]

- The same Public Health Service report found that, "Compared with older adults, adolescents (10 to 19 year olds) and young adults (20 to 24 year olds) are at higher risk for acquiring STDs for a number of reasons: they may be

more likely to have multiple (sequential or concurrent) sexual partners rather than a single, long-term relationship; they may be more likely to engage in unprotected intercourse; and they may select partners at higher risk." [II-4]

Adolescents are engaging in risky sexual behaviors.

- A study published in 1996 indicated that even high school-aged youth who classify themselves as "virgins" engage in risky sexual behaviors that can lead to HIV infection. "Few high school-aged virgins engaged in anal intercourse, but many engaged in other genital sexual activities. Some of these activities can transmit disease, and all can indicate a need for counseling about sexual decision making, risk, and prevention." [II-5]

- A study published in *AIDS Education and Prevention* revealed that certain life circumstances can affect HIV risk among young people. "Among youths in stressful life situations, HIV risk behaviors are apt to become more prevalent. For example, sexual intercourse is likely to be initiated earlier and with more partners. Over 90% of incarcerated youths, runaways, minority gay male youths, and psychiatrically hospitalized female youths are sexually active, ... typically by 12.5 years of age. ... A subsample of homeless and runaway youth engage in survival sex (e.g., bartering sex for drugs, money), which further increases their risk for HIV infection. Survival sex is associated with frequent unprotected intercourse with numerous and anonymous partners, placing youths at higher risk for HIV infection." [II-6]

- The same article in *AIDS Prevention and Education* explained that alcohol and other substance abuse can increase young people's risk for HIV infection. "Still, the primary risk of HIV infection from adolescents' use of alcohol and drugs results from the disinhibiting effects these substances have on sexual restraint. The use of drugs and alcohol is correlated with increases in sexual activity and a greater likelihood of engaging in high-risk sexual behavior, such as unprotected intercourse." [II-6]

Many young people are not engaging in preventive behaviors such as condom use.

- CDC data from the 1995 Youth Risk Behavior Surveillance System (YRBSS) indicate that, among currently sexually active high school students, only 54% reported that either they or their partner had used a condom during last sexual intercourse. [II-3]

- The Alan Guttmacher Institute has found that sexually experienced adolescents tend to have intercourse less frequently than older unmarried men and women. "This tendency to have sex sporadically can affect

teenagers' efforts to prevent STDs and unintended pregnancy by making them unprepared to use contraceptives when they do have intercourse or unwilling to use effective methods that provide protection over a long period of time, such as the pill." [II-7]

STDs can increase the probability of HIV transmission.

- Studies have shown a biological link between HIV and other STDs. See Wasserheit in Additional References.

The following documents are included in section II:

II-1 Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report,* 1996;8 (no. 1).

II-2 Jemmott J.B. Jemmott L.S. "Behavioral Interventions with Heterosexual Adolescents," in Interventions to Prevent HIV Risk Behaviors. NIH Consensus Development Conference, February 11-13, 1997.

II-3 Centers for Disease Control and Prevention. *CDC Surveillance Summaries,* September 27, 1996. MMWR 1996;45 (No. SS-4).

II-4 Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1995.* U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, September 1996.

II-5 Schuster Mark, et al. "The Sexual Practices of Adolescent Virgins: Genital Sexual Activities of High School Students Who Have Never Had Vaginal Intercourse." *American Journal of Public Health* 1996; Vol. 86:1570-1576.

II-6 Rotheram-Borus M.J., Mahler K., Rosario M. "AIDS Prevention with Adolescents." *AIDS Education and Prevention* 1995; Vol. 7 No. 3:320-336.

II-7 The Alan Guttmacher Institute. "Sex and America's Teenagers." 1994; New York.

Section III
Are specific racial/ethnic populations at risk for HIV infection?

Yes, specific populations are becoming infected with HIV at higher rates than national averages.

- According to a CDC Surveillance Report describing HIV infections and AIDS cases through June 1996, the HIV cases among African American adolescents (1,939 cases) account for 64% of cases in the 13 to 19 year old age category. These rates indicate that African American adolescents are at disproportionate risk of becoming infected with HIV, given that they make up only 16% of the total U.S. population aged 13 to 19. The HIV cases among Hispanic adolescents (120 cases) account for 4% of cases in the same age category, and these youth make up 13% of the total U.S. population aged 13 to 19. (Data describing exposure categories are included in this binder as well.) [III-1]

- The same report indicated that, through June 1996, the AIDS cases among African American young adults (35,163 cases) account for 35% of cases in the 13 to 29 year old age category, while African American young people make up only 15% of the total U.S. population aged 13 to 29. The AIDS cases reported among Hispanic young adults in the same age group (19,901 cases) account for 20% of cases in that age category, but Hispanic young people make up only 13% of the total U.S. population aged 13 to 29. Thus, both African American and Hispanic young people have disproportionate risk of acquiring AIDS. [III-1]

Adolescents in specific populations are becoming pregnant and acquiring STDs.

- The CDC gathered data in the United States during 1995 through the Youth Risk Behavior Surveillance System (YRBSS). The resulting report showed that, while 7% of all high school students reported that they had been pregnant or gotten someone pregnant, 15% of African American high school students reported the same, and 13% of Hispanic high school students reported that they had been pregnant or gotten someone pregnant. Among white high school students, 4% reported that they had been pregnant or gotten someone pregnant. While these data suggest that the percentages of

teen pregnancies among African American and Hispanic youth are higher, the actual numbers of white high school students reporting being pregnant or getting someone pregnant are significant. [III-2]

- According to the Public Health Service, in 1995 in the U.S., 5,447 cases of gonorrhea were reported among African American 10 to 14 year olds, and 82,897 cases of gonorrhea were reported among African American 15 to 19 year olds. The gonorrhea cases among African American 15 to 19 year olds account for 79% of cases in that age category. Also in 1995, 415 cases of gonorrhea were reported among Hispanic 10 to 14 year olds, and 5,289 cases of gonorrhea were reported among Hispanic 15 to 19 year olds. The gonorrhea cases among Hispanic 15 to 19 year olds account for 5% of cases in that age category. [III-3]

- The same Public Health Service report indicated that, in 1995, 98 cases of primary and secondary syphilis were reported among African American 10 to 14 year olds, and 1,601 cases were reported among African American 15 to 19 year olds. The primary and secondary syphilis cases among African American 15 to 19 year olds account for 89% of cases in that age category. Also in 1995, 3 cases of primary and secondary syphilis were reported among Hispanic 10 to 14 year olds, and 52 cases were reported among Hispanic 15 to 19 year olds. The primary and secondary syphilis cases among Hispanic 15 to 19 year olds account for 3% of cases in that age category. [III-3]

Adolescents in specific populations are engaging in risky sexual behaviors.

- The CDC's 1995 YRBSS report indicated that African American high school students (73%) and Hispanic students (58%) were more likely than white students (49%) to report having had sexual intercourse. [III-2]

- The 1995 YRBSS data show that African American high school students (36%) and Hispanic students (18%) were more likely than white students (14%) to report having had four or more sex partners during their lifetime. [III-2]

- The Alan Guttmacher Institute also reported that young people in specific populations become sexually active at early ages. "Half of young black men say they have had sex by age 15, but Hispanic and white men do not report this level of sexual activity until they are nearly 17. Half of black women report having had intercourse by age 16.5 -- a year sooner than white and Hispanic women." [III-4]

- However, the same report indicated that, "The trends toward increasing and earlier levels of nonmarital intercourse among young women have occurred almost entirely among whites, in part because sexual activity was already

more common, and marriage less common, among black women. The likelihood that a white teenage woman would have intercourse outside marriage more than doubled between the late 1950s and the mid-1980s. ... By comparison, a black woman's likelihood increased less than 10%." [III-4]

Young people in specific populations are engaging in unprotected sex, although specific populations are having unprotected sex at lower rates than the general population.

- The 1995 YRBSS data indicated that among currently sexually active African American high school students, only 66% reported that either they or their partner had used a condom during last sexual intercourse. Among currently sexually active Hispanic high school students, only 44% reported that either they or their partner had used a condom during last sexual intercourse. Also, among currently sexually active white high school students, only 53% reported that either they or their partner had used a condom during last sexual intercourse, and among all high school students, only 54% reported the same. [III-2]

STDs can increase the probability of HIV transmission.

- Studies have shown a biological link between HIV and other STDs. See Wasserheit in Additional References.

The following documents are included in section III:

III-1 Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report,* 1996;8 (no. 1).

III-2 Centers for Disease Control and Prevention. *CDC Surveillance Summaries,* September 27, 1996. MMWR 1996;45 (No. SS-4).

III-3 Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1995.* U.S. Department of Health and Human Services, Public Health Service. Atlanta: Centers for Disease Control and Prevention, September 1996.

III-4 The Alan Guttmacher Institute. "Sex and America's Teenagers." 1994; New York.

Section IV
Do educational programs about sexuality and condom use encourage young people to be (more) sexually active?

No, evaluations of educational programs show that the programs lower or do not change levels of sexual activity.

- The World Health Organization Global Programme on AIDS analyzed 35 studies about sex education programs for young people. The resulting report stated, "... that there is no evidence that sex education in schools leads to earlier or increased sexual activity in young people." For example, ten studies revealed that sex education increased the adoption of safer sexual practices in sexually active youth. Six studies found that educational programs led either to a delay in starting sexual activity or to a decrease in overall sexual activity. Two studies found that access to counseling and contraceptive services did not encourage earlier or increased sexual activity. Finally, the other 17 studies revealed that educational programs led to neither an increase nor a decrease in levels of sexual activity. The report stated, "The belief that sex and AIDS education may encourage sexual activity in young people is a powerful barrier to the introduction of HIV prevention programmes for youth. Yet, all the evidence we have looked at suggests that the opposite is true." [IV-1]

- Also, a comprehensive review of 23 school-based sex education programs found that exposing teens to information about sex did not encourage sexual activity. The studies reviewed indicated that sex education programs -- including topics such as abstinence, contraception, pregnancy, STDs, and HIV/AIDS -- did not increase sexual activity among participants. Teens who received specific AIDS education were less likely to engage in sex, and those who did were more likely to have sex less often and have safer sex. [IV-2]

- According to a statement from the National Institutes of Health (NIH) about HIV prevention interventions, community myths about sex education leading to more sexual activity among youth are unfounded. "Nor do the data indicate that sex education programs result in earlier onset of sexual behavior or more sexual partners, or that condom distribution fosters more risky

behavior. ... after interventions, young people tend to delay initiation of intercourse or, if they are sexually active, have fewer partners ... " [IV-3]

- Another report evaluated the effects of an AIDS prevention program specifically targeted to African American male youth that was designed to increase participants' knowledge about AIDS and STDs and to weaken problematic attitudes toward risky sexual behaviors. The report found that the intervention did not encourage participants to engage in sexual activity. The report stated, "Adolescents who received the AIDS intervention were *less* likely to engage in sexual activity, and those who did were more likely to engage in safer sexual activity. Thus, the common fear that providing adolescents with information about AIDS will result in greater sexual activity is perhaps simply a fear." [IV-4]

An evaluation of a condom distribution program shows that the program lowered sexual activity.

- An evaluation of a condom promotion and distribution program for Latino youth revealed that this HIV prevention strategy did not increase sexual activity among the adolescents in the study. Males who participated were less likely to initiate first sexual activity and females were less likely to have multiple partners. The report concluded, "An HIV prevention program that included the promotion and distribution of condoms did not increase sexual activity among the adolescents in this study." [IV-5]

The following documents are included in section IV:

IV-1 "World Health Organization urges sex education in schools to prevent AIDS." *Soz Praventivmed* 1994; Vol. 39 No. 5:325.

IV-2 Kirby D., Short L., Collins J., et al. "School-based programs to reduce sexual risk behaviors: a review of effectiveness." *Public Health Reports* 1994; Vol. 109 No. 3:339-360.

IV-3 National Institutes of Health, Consensus Development Statement [In Press]. "Interventions to Prevent HIV Risk Behaviors." February 11-13, 1997

IV-4 Jemmott J., Jemmott L.S., Fong G., et al. "Reductions in HIV Risk-Associated Sexual Behaviors among Black Male Adolescents: Effects of an AIDS Prevention Intervention." *American Journal of Public Health* March 1992; Vol. 82 No. 3:372-377.

IV-5 Sellers D.E., McGraw S.A., McKinlay J.B. "Does the promotion and distribution of condoms increase teen sexual activity? Evidence from an HIV prevention program for Latino youth." *American Journal of Public Health* December 1994; Vol. 84 No. 12:1952-9.

Section V
Since abstinence is the only 100% sure way to avoid transmission of HIV, why isn't the project focusing solely on abstinence messages?

Messages need to be tailored specifically for the target audience.

- The CDC's sexually transmitted disease treatment guidelines recommend a counseling approach that includes different types of messages to reach audiences with different behaviors and risk factors. "Prevention messages should be tailored to the patient, with consideration given to his or her specific risks. Messages should include a description of measures, such as the following, that the person can take to avoid acquiring or transmitting STDs: The most effective way to prevent sexual transmission of HIV infection and other STDs is to avoid sexual intercourse with an infected partner. If a person chooses to have sexual intercourse with a partner whose infection status is unknown or who is infected with HIV or other STDs, men should use a new latex condom with each act of intercourse." [V-1]

Studies show that the most effective programs use comprehensive messages.

- The World Health Organization Global Programme on AIDS conducted a survey of 35 studies about sex education programs for young people that used a variety of messages. "The WHO advises that a range of options should be offered to young people, including postponing first sexual activity and, for those already sexually active, non-penetrative sex and the use of condoms for protected intercourse. ... Also, those programmes which promoted both postponement of sex and protected sex were more effective than those which promoted abstinence alone." [V-2]

- The Division of Adolescent and School Health's (DASH) Research to Classroom Project has identified HIV prevention programs that show credible evidence of reducing risk behaviors among young people. The curricula for these programs include messages for sexually active teens as well as for non-sexually active youth. Each curriculum includes topics such as negotiation skills and abstinence, as well as proper use of contraceptives. The programs (*Be Proud! Be Responsible; Get Real About AIDS®*, high school

level, 2nd edition; *Reducing the Risk; Becoming A Responsible Teen*) have proven effective in, "reducing sexual risk behaviors for infection with HIV and other STDs and unintended pregnancies " [V-3]

- Also, a study that reviewed 23 school-based sex education programs recommended that educational programs should both encourage young people to delay or abstain from having intercourse, and encourage them to use contraceptives if they do have intercourse. "Programs should be both age- and experience-appropriate. That is, programs for younger adolescents should focus more upon delaying intercourse, while those for older youths should focus more upon condoms and other contraceptives." [V-4]

- An evaluation of two HIV interventions for African American adolescents -- one standard and one more comprehensive -- proved that, "youths who were equipped with information and specific skills lowered their risk to a greater degree, maintained risk reduction changes better, and deferred the onset of sexual activity to a greater extend than youths who received information alone." The more comprehensive intervention included components such as technical competency skills in correct condom use, social competency skills and cognitive competency skills. "Their outcomes in lowering the youths' risk for HIV infection, evaluated postintervention and through a 1-year follow-up period, indicated significantly greater benefit by participants in the skills training intervention." [V-5]

The following documents are included in section V:

V-1 Centers for Disease Control and Prevention. "1993 Sexually Transmitted Diseases Treatment Guidelines." MMWR 1993;42 (No. RR-14).

V-2 "World Health Organization urges sex education in schools to prevent AIDS." *Soz Praventivmed* 1994; Vol. 39 No. 5:325.

V-3 Division of Adolescent and School Health. "Programs that Work." Research to Classroom Project. December 1996.

V-4 Kirby D., Short L., Collins J., et al. "School-based programs to reduce sexual risk behaviors: a review of effectiveness." *Public Health Reports.* 1994; Vol. 109 No. 3:339-360.
[see section IV]

V-5 St. Lawrence Janet, et al. "Cognitive-Behavioral Intervention to Reduce African American Adolescents' Risk for HIV Infection." *Journal of Consulting and Clinical Psychology* 1995; Vol. 63 No. 2:221-237.

Section VI
Are condoms an effective method of preventing HIV infection?

Yes, condoms are effective in reducing the risk of sexual transmission of HIV and other STDs.

- According to the CDC's sexually transmitted disease treatment guidelines, "When used consistently and correctly, condoms are very effective in preventing a variety of STDs, including HIV infection. Multiple cohort studies, including those of serodiscordant couples [1], have demonstrated a strong protective effect of condom use against HIV infection. Condoms are regulated as medical devices and subject to random sampling and testing by the Food and Drug Administration (FDA). Each latex condom manufactured in the United States is tested electronically for holes before packaging. Condom breakage rates during use are low in the United States (less than or equal to 2 per 100 condoms tested). Condom failure usually results from inconsistent or incorrect use rather than condom breakage." VI-1

- Also, the CDC published a Morbidity and Mortality Weekly Report (MMWR) Update titled "Barrier Protection Against HIV Infection and Other Sexually Transmitted Diseases" that recommended condom use for HIV prevention. Specifically, the document stated, "Condom use reduced the risk for gonorrhea, herpes simplex virus (HSV) infection, genital ulcers, and pelvic inflammatory disease. In addition, intact latex condoms provide a continuous mechanical barrier to HIV, HSV, hepatitis B virus (HBV), *Chlamydia trachomatis*, and *Neisseria gonorrhoeae*. A recent laboratory study indicated that latex condoms are an effective mechanical barrier to fluid containing HIV-sized particles." VI-2

- According to the American Academy of Pediatrics, condoms are recognized as an important measure in preventing the transmission of STDs, including HIV, and pregnancy. "The consensus of expert opinion concludes that the proper use of latex condoms can considerably reduce the risk of transmission of STD agents, including HIV. Thus, latex condoms are recommended for use by sexually active adolescents." VI-3

---

[1] couples in which one partner is HIV positive and the other is HIV negative

Studies of heterosexual serodiscordant couples show that condoms can reduce the sexual transmission of HIV.

- The European Study Group on Heterosexual Transmission of HIV followed the sexual activity of 256 serodiscordant couples from 1987 to 1991. The study found that, among those who used condoms consistently for vaginal and anal intercourse, none of the seronegative partners became infected with HIV, despite a total of about 15,000 episodes of intercourse. "Consistent use of condoms for heterosexual intercourse is highly effective in preventing the transmission of HIV. Among couples not using condoms regularly, the risk of HIV transmission varies widely." [VI-4]

- Another study published in the *Journal of Acquired Immune Deficiency Syndromes* followed a cohort of 343 seronegative women who were monogamous partners of infected men and whose only risk of acquiring HIV was through sexual exposure to their infected partners. The study found that the annual seroconversion rate for couples who "never" used condoms was 6%, the rate for those who "not always" used condoms was 10%. However, the annual seroconversion rate for couples who "always" used condoms was only 1%. "The results of this study confirm in a prospective setting the protective effect of condom use." [VI-5]

Condom failure rates among young people are low.

- A French study that examined condom breakage and slippage rates indicated that adolescents using condoms are at low risk for condom failure. At last heterosexual intercourse, only 2.8% of respondents 18 to 24 years old experienced condom failure. 2.5% had experienced condom breakage and 0.3% had experienced condom slippage. [VI-6]

The following documents are included in section VI:

VI-1 Centers for Disease Control and Prevention. "1993 Sexually transmitted diseases treatment guidelines." MMWR 1993;42 (No. RR-14).

VI-2 Centers for Disease Control and Prevention. "Update: Barrier Protection Against HIV Infection and Other Sexually Transmitted Diseases." MMWR August 6, 1993; Vol. 42 No. 30:589-591.

VI-3 American Academy of Pediatrics, Committee on Adolescence. "Condom Availability for Youth." *Pediatrics* February 1995; Vol. 95 No. 2:281-285.

VI-4 De Vincenzi, Isabelle for the European Study Group on Heterosexual Transmission of HIV. "A Longitudinal Study of Human Immunodeficiency Virus Transmission by Heterosexual Partners." *The New England Journal of Medicine* August 11, 1994; Vol. 331 No. 6:341-346.

VI-5 Saracco Alberto, et al. "Man-to-woman Sexual Transmission of HIV: Longitudinal Study of 343 Steady Partners of Infected Men." *Journal of Acquired Immune Deficiency Syndromes* 1993; Vol. 6: 497-502.

VI-6 Messiah A., Dart T., Spencer B.E., Warszawski J., and the French National Survey on Sexual Behavior Group (ACSF). "Condom Breakage and Slippage during Heterosexual Intercourse: A French National Survey." *American Journal of Public Health* March 1997; Vol. 87 No. 3:421-424.

Section VII
Is there any proof that educational programs such as this are effective in reducing the sexual transmission of HIV?

Yes, reducing risk behavior can reduce HIV transmission.

- According to a statement from the National Institutes of Health (NIH) about HIV prevention interventions, reductions in behavioral risks can lead to reductions in the transmission of HIV. Specifically, the NIH stated, "The evidence is unequivocal that consistent and effective use of condoms and of sterile injecting equipment on the part of injection drug users is nearly 100 percent effective in protecting against HIV. Reduction in risky behavior leads to reduction in HIV to a degree that depends on context, particularly the local prevalence of HIV infection." [VII-1]

Evaluations of HIV/AIDS education programs show they are effective.

- Two prominent behavioral scientists reviewed HIV prevention programs for heterosexual adolescents and concluded that behavioral interventions can reduce HIV risk behavior among young people. Specifically, they found that, "...studies conducted with adolescents demonstrate that interventions can significantly affect HIV risk-associated sexual behavior, including condom acquisition, condom use, unprotected sexual intercourse, frequency of sexual intercourse, and number of sexual partners." [VII-2]

- According to a review of interventions designed to reduce heterosexual transmission of HIV, these educational programs can increase condom use among participants. For example, the review indicated that, "The absolute increases in condom use have consistently been in the range of 20-30 percent in response to small-group HIV interventions for heterosexuals at high risk. The impact of the programs varies based on the number of sessions and their length (i.e., the dose of the intervention, the targeted outcome [increased condom use, reductions in the numbers of sexual partners]), the target population (IDUs, persons with an STD), and the context of the intervention (individuals, couples, communities, nations)." [VII-3]

- An evaluation of the AIDS Community Demonstration Projects (ACDPs) found these HIV interventions to be successful. The community-level programs targeted populations in Dallas, TX; Denver, CO; Long Beach, CA; New York, NY; and Seattle, WA. Each intervention site distributed printed HIV prevention material, condoms and bleach kits. The evaluation found, "Preliminary findings indicated positive changes in consistent condom use for vaginal intercourse with a main partner and with other partners, consistent condom use for anal intercourse with other partners, and consistent use of bleach to clean injection equipment." [VII-3]

- The Urban Institute evaluated the impact of AIDS education and sex education programs on the sexual behavior and condom use of adolescent males. The report indicated that the receipt of AIDS education and sex education was associated with modest but significant decreases in the number of partners and frequency of intercourse among participants. Also, having received instruction in these topics was associated with more consistent condom use. [VII-4]

- A study published in the *Journal of the American Medical Association* in 1995 examined the results of an intervention designed for women that focused on ethnic and gender pride, sexual self-control, sexual assertiveness, communication skills, proper condom use skills and partner norms. "The findings suggest that a culturally appropriate, gender-tailored intervention that emphasizes social skills training and attempts to modify partner norms may be effective at enhancing consistent condom use and psychosocial mediators associated with this HIV preventive behavior." [VII-5]

- Another study evaluated the impact of an HIV prevention intervention on the behavior of gay and bisexual male adolescents. This evaluation found that those who participated in the intervention experienced significant reductions in the number of unprotected same-sex anal and oral acts. Younger adolescents who participated significantly reduced their number of sexual partners following the intervention. Also, the impact of the program varied by race/ethnicity: African-American adolescents reduced their risky sexual acts most dramatically. [VII-6]

The following documents are included in section VII:

VII-1 National Institutes of Health, Consensus Development Statement [In Press]. "Interventions to Prevent HIV Risk Behaviors." February 11-13, 1997
[see section IV]

VII-2 Jemmott J.B. Jemmott L.S. "Behavioral Interventions with Heterosexual Adolescents," in Interventions to Prevent HIV Risk Behaviors. NIH Consensus Development Conference, February 11-13, 1997.

VII-3 Rotheram-Borus M.J. "Interventions to Reduce Heterosexual Transmission of HIV," in Interventions to Prevent HIV Risk Behaviors. NIH Consensus Development Conference, February 11-13, 1997.

VII-4 Ku L.C., Sonenstein F.L., Pleck J.H. "The association of AIDS education and sex education with sexual behavior and condom use among teenage men." *Family Planning Perspectives* May-June 1992; Vol. 24 No. 3:100-106.

VII-5 DiClemente R., Wingood G. "A Randomized Controlled Trial of an HIV Sexual Risk-Reduction Intervention for Young African-American Women." *Journal of the American Medical Association* October 25, 1995; Vol. 274 No. 16:1271-1276.

VII-6 Rotheram-Borus M.J., Reid H., Rosario M. "Factors mediating changes in sexual HIV risk behaviors among gay and bisexual male adolescents." *American Journal of Public Health* December 1994; Vol. 84 No. 12:1938-1946.